

Embroidery Defects and Finishing

INTRODUCTION

While doing embroidery work or even after its completion, some defects might arise, which a good hand embroiderer should be able to recognise and rectify properly. These defects may occur because of improper stitch lengths or by inserting the needle at the same place multiple times, which damages the fabric; incorrect way of using the backing; incorrect use of thread and needle; or by pulling the stitches hard. Lack of finishing while doing embroidery may also cause certain defects.

All these defects should be rectified neatly and properly without any damage to the fabric and embroidery work. The embroiderer should be careful while handling the fabric, needle and thread. A lot of patience and hard work is required to keep a check on these defects while doing any embroidery type. This unit deals with all these aspects in detail.

SESSION 1: EMBROIDERY DEFECTS AND THEIR RECTIFICATION

Embroidery defects

These arise because of faults and problems in the stitches, or fabrics or design, or in all. Some of the basic embroidery defects are—

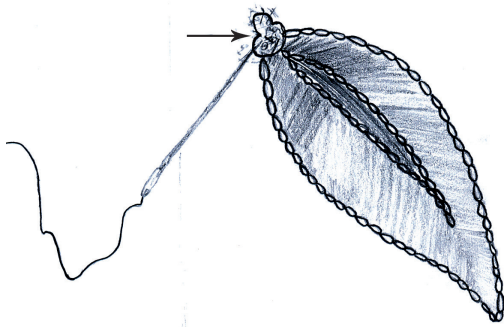


Fig. 3.1 Fabric damage

(a) Fabric damage or needle holes

These are caused because of the following reasons:

- (i) the use of incorrect type and size of needle
- (ii) adding a lot of stitches on the same spot
- (iii) not tearing the backing properly
- (iv) the fabric getting damaged when the stitches are pulled out and
- (v) the damage caused on the fabric because of recurring needle piercing, especially around the corners of the embroidery.

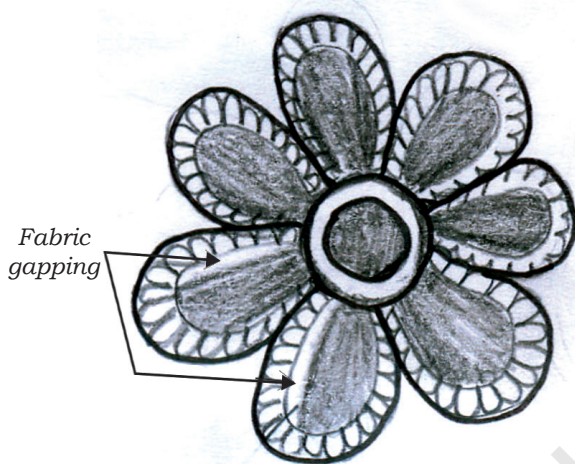


Fig.3.2 Fabric Gapping

(b) Fabric gapping

This defect occurs when the fabric gaps are visible through the embroidery design in the background, either in the middle part of the design or on the edges.

(c) Missed trims

When threads are left on the front side in the embroidery design between the designs, it is called missed trims.

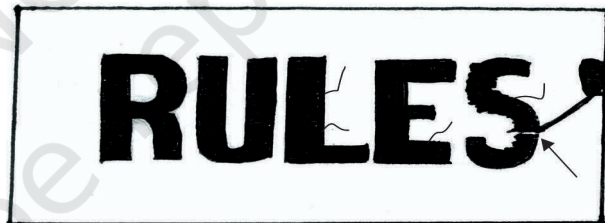


Fig. 3.3 Missed trims

(d) Improper placement of embroidery design

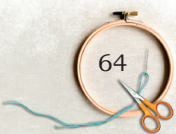
This is a result of the incorrect tracing of the design.

(e) Poor registration of design

When the embroidery design and stitches are not arranged correctly, then this defect can be seen.

(f) Bunching at the corners

When the corners of the embroidery design are not crisp because of gathering up of the thread at a point, it is known as bunching.



(g) Thick embroidery

This defect can be seen when the embroidery is very dense or thick in some places.



Fig. 3.4 Thick embroidery

(h) Poor stitch density

When the stitch is not dense and done quite apart, the base fabric is visible in the embroidery and is called as poor stitch density.

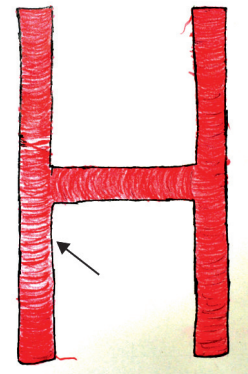


Fig. 3.5 Poor stitch density

(i) Poor hooping

Due to poor hooping, the fabric around the embroidery gets hazy or wrinkled, and thus, stops to lay flat on a fabric surface.



Fig. 3.6 Poor hooping

Rectifying mistakes

- (i) Sometimes, the spacing does not look correct or some area of the embroidery is unacceptable. Generally, it does not work to reverse the needle out or take the needle out on the backside. If just some stitches are involved, remove the needle and use the blunt end of it to lift out the thread from the offending stitches.
- (ii) Rethread the needle and retry. Check the hoop and its tension, keep it firm to avoid fabric ruches and use proper backing, like fusing paper, before starting the embroidery.
- (iii) Wherever the larger area of stitching of beads is involved, the most time-efficient way to repair the damage is to remove the beads. This is done by cutting the threads in several locations.
- (iv) Hoop should not be stretched too much; otherwise, it will damage the fabric. Hoop marks should always be ironed after completion of embroidery work.
- (v) Thread thickness should be chosen as per the base embroidery fabric to avoid fabric damage. Threads should also be selected according to the designs.

NOTES

- (vi) Use scissors carefully to cut the trims and extra loops. The leftover threads can be trimmed or glued at the wrong side of the completed embroidery product.
- (vii) After understanding the defects, like fabric damage, gapping, thick embroidery, etc., the students can rectify them by doing embroidery stitches correctly.

Ensuring the quality of embroidery near perfection in the final product is essential for the overall look of the garment or product.

Important tips for good embroidery work

- (i) Before starting embroidery work, wash hands with soap so that the fabric or the material used remains as clean as new.
- (ii) Ensure that the embroidery hoop (ring or frame) is fitted properly before starting the embroidery work. For holding the fabric tight and stretched, wrap a ribbon around the inner ring, if the outer ring is loose.
- (iii) The thread should not be very long (i.e. not more than 17 inches). A very long thread pulled too often through the fabric tends to coil or fray towards the end.
- (iv) Avoid using a knot when starting or ending an embroidery thread. Bring the needle straight up and start the embroidery, holding the thread on the wrong side of the fabric and hiding it under the working stitches. Remember that it should not be pulled so as to avoid damaging the stitches. The finished embroidery work should be neat and even, on the wrong as well as the right side. Students in the learning stage can make knots while doing embroidery.
- (v) Make the embroidery in a way that the shape of the design is maintained properly. It should be done gently and the working thread should not be pulled too much. Use small scissors to cut the threads.
- (vi) Avoid putting pressure over the fabric, otherwise it may become loose.

HAND EMBROIDERER – CLASS IX



- (vii) Keep all the embroidery tools and supplies handy in a box.
- (viii) Wrap the remains of the yarn and the thread on a piece of cardboard so that they can be reused.
- (ix) Keep the embroidery ring in a plastic bag so it doesn't get dirty.
- (x) Cover the incomplete embroidery on the frame with a clean cloth to keep safe and clean.
- (xi) Do not use very hot iron over the embroidered portion to avoid damaging it.
- (xii) Do not dry embroidered fabric in sunlight; otherwise the colours will fade away.
- (xiii) Place the samples of the embroidery over the canvas. Attach in the file to preserve them.
- (xiv) Keep *zari* work (silver or golden) thread away from perfumes or fragrance; otherwise, they become discoloured.
- (xv) Practise embroidery continuously to become more efficient and to be able to do a more intricate embroidery work in less time.
- (xvi) Carry out embroidery, preferably in the daylight, to avoid strain on the eyes.
- (xvii) Use fast coloured threads for embroidery; otherwise, it will spoil both the embroidery as well as the fabric.
- (xviii) Use lining material or backing as per the nature of the fabric to be embroidered in order to give it strength, stability and durability.
- (xix) Use needles of appropriate number to embroider.
 1. Chenille i.e., a sharp, pointed needle with thin and long eye is appropriate for stem stitches, lazy daisy stitches, straight stitches, mirror work, etc.
 2. Crewel i.e., a sharp, pointed needle with round eye is used for French knot, bullion knot, etc. A round eye needle is convenient to slip the yarn wrapped around it.
 3. Tapestry needles are blunt at their point or tip. They are used for matty cloth with cross stitch, open work embroidery, wool embroidery, etc. As the point of the needle is blunt, it does not draw or stretch the thread from the fabric.



Precautionary measures while doing embroidery

(a) Use of thimble

It is a lightweight and small hard-pitted cup worn on the finger or thumb for its safety and protection. It is useful while hand sewing not only to protect the fingers but also to direct the needle through the fabric. These are made of metal, rubber as well as plastic.

There are two main types of thimbles—open-ended thimble, used mainly by tailors, and close-ended thimble, also called dressmaker thimble.

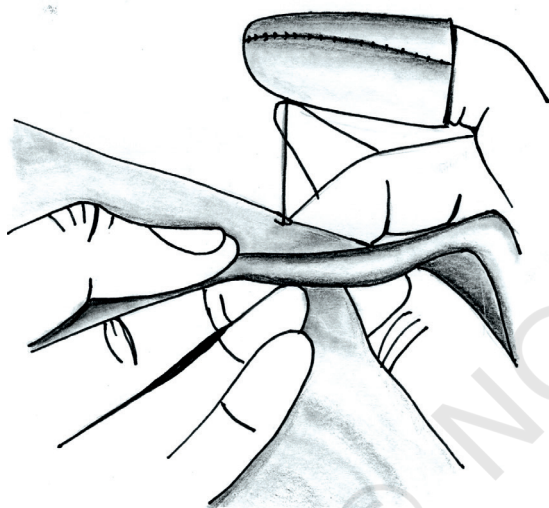


Fig. 3.7(a) Working by wearing a rubber thimble

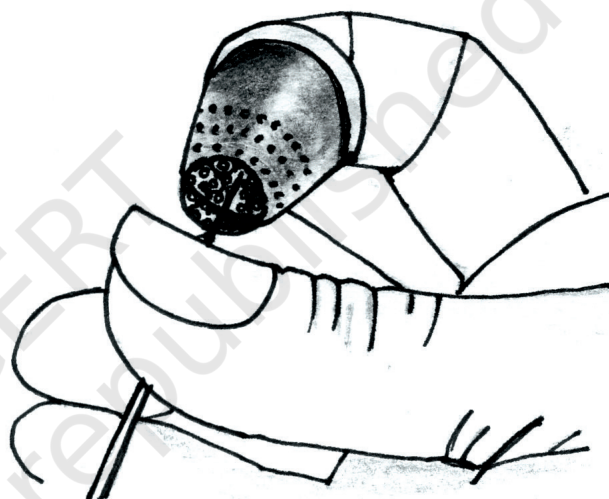


Fig. 3.7(b) Working by wearing a metal thimble

(b) Use of first aid kit

Learning about first aid is the moral duty of every citizen. Emergencies can occur at any time and place, and a delay of just a few minutes to treat it may even cause death. When emergencies occur, one should know the action plan to manage the situation.

First-aid refers to the instant care given to the victim of an accident or a sudden illness before medical help can reach him/her.

The aims of providing first aid are to preserve life, prevent illness or injury from becoming worse in the victim.



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Embroidery tools and materials are such that an embroiderer may get injured mainly on fingers. It is important to keep a first aid kit at the embroidery workplace.

It is important to have basic first aid kit at the workplace, so that the injured person can be treated quickly before the person can get proper treatment from the doctor or in the hospital. Materials in the first aid kits are planned, to manage the accidental situations that do not require a doctor urgently. It is also prepared to provide instant relief and care in emergency situations before treatment by a doctor. All first aid kits should have the basic items used to take care of small injuries immediately, such as:

- (i) sterile dressing to stop bleeding
- (ii) cleansing agent or soap, and antibiotic to disinfect
- (iii) anti-allergic medicines and antibiotic ointment to prevent infection
- (iv) ointments for burns and wounds
- (v) adhesive bandages of different sizes
- (vi) nonstick sterile pads: They are super soft, absorbent pads which help in healing wounds, burns, bleeding, draining wounds and infections
- (vii) eye drops to wash the eyes, or as a general decontaminant
- (viii) thermometer
- (ix) ice pack and hot water bags
- (x) pain killer and antipyretic tablets
- (xi) cotton packet and
- (xii) crepe bandages of different sizes

(c) Use of good lighting and magnifying glass

While magnification is not necessary for everyone, good light access is essential for embroidery workers. Good lighting minimises eyestrain and it helps the embroiderer to see the embroidery details properly. Many electronic and other shops in the local market provide a range of good lighting options. If the embroiderer does not have the facility of good light, he/she may work in a natural, well-lit place.

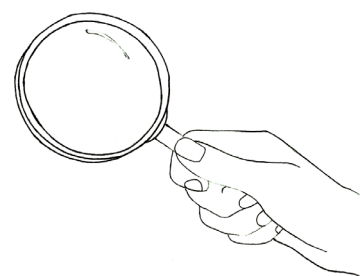


Fig.3.8 Magnifier



The use of a magnifier is of great help for the embroiderer while doing intricate needlework without giving stress to the eyes. Extremely fine embroidery, having intricate and very small motifs, can be worked out better using a magnifier.

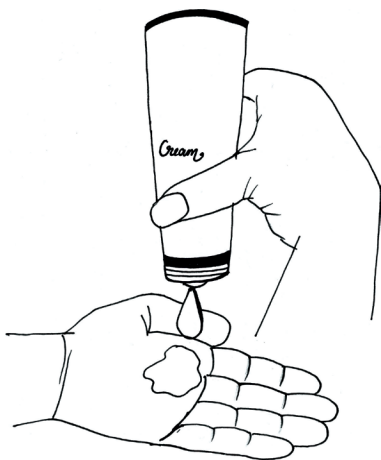


Fig. 3.9 Care of hands

(d) Tips for hand embroiderers

- (i) Hand care is the most significant aspect for a hand embroiderer. Different types of needles may harm the hands while doing needle work; hence, the embroiderer should be very careful towards the healing of wounds in the fingers. They should also apply suitable cream or oil on their hands for necessary care and prevent them from getting very dry. Hand gloves should also be used.
- (ii) Embroiderers' workplace should have fire extinguishers to prevent damage or loss, in case of emergencies.
- (iii) The work environment should be dust-free and with proper ventilation.
- (iv) The workplace should be free from insects and bugs.
- (v) Use face or nose masks during allergies and infections. Make use of head covering for hair fall.
- (vi) Maintaining correct posture (straight back) is very important while doing embroidery to avoid back pain.
- (vii) Hand embroiderers can consult experts for the correct body posture while at their workplace.

Practical Exercises

Activity 1

Prepare a chart on the precautionary measures taken while doing embroidery.

Material Required

1. Chart sheet
2. Colourful pens and pencils
3. Pencil
4. Eraser
5. Ruler

Procedure

1. Cut the chart sheet in A3 size.
2. Draw margins and write precautionary measures used while doing embroidery.
3. Draw diagrams wherever necessary.
4. Decorate the sheet with colourful pens, pencils, etc.
5. Attach the sheet on the drawing board of the classroom.

Activity 2

Prepare a chart showing embroidery defects and their rectification.

Material Required

1. Chart sheet
2. Colourful pen and pencils
3. Ruler
4. Pencil
5. Eraser

Procedure

1. Cut the chart sheet in A3 size.
2. Write the embroidery defects and their rectification.
3. Decorate the sheet with coloured pens, pencils, etc.
4. Attach the sheet on the drawing board of the classroom.

Note

Samples of embroidery defects may also be prepared and attached to the chart.

Check Your Progress**A. Fill in the blanks with the most appropriate word from the choices given below**

1. The incorrect _____ of the design finally results in improper placement of embroidery design.
 - (a) mixing
 - (b) tracing
 - (c) copying
 - (d) labelling
2. A _____ is a small hard-pitted cup worn for protection on the finger that pushes the needle in sewing.
 - (a) paper
 - (b) ripper
 - (c) thimble
 - (d) tape



NOTES

B. Questions

1. Describe the precautionary measures used while doing embroidery.
2. Write down 10 tips for good embroidery work.
3. Explain the different types of defects in embroidery and their rectification.

SESSION 2: FINISHING AND COSTING OF EMBROIDERED PRODUCTS

Finishing

Embroidery work involves materials and methods which can determine the quality of the final product. Base materials, different raw materials, various techniques to carry out stitches and many other finishing aspects in the end products are important from the point of view of quality. Finishing of the embroidered products is one of the very important aspects of the quality of embroidered finishing process.

Embroidery finishing process

After the embroiderer has completed the embroidery work, the finishing needs to be done to improve the quality of their work and give high quality services to the clients.. The finishing process is much more than just folding up the embroidered product or garment, and removing the backing.

Following are the main issues which should be sorted and rectified during the finishing process:

(a) Thread tails

Trim off the thread remains as near to the article as possible, and take care not to cut any locked knots (if made).

(b) Missing stitches

When some stitches are skipped and are found missing, they should be modified. The simplest way for this is to thread a hand-sewing needle with a double strand of embroidery thread matching the base fabric and do

HAND EMBROIDERER – CLASS IX



a hand satin stitch to fill in the areas, in which the stitches are missing.

(c) Stray threads

They are the threads that often get trapped during the processing of the stitches on the product or garments. Do not cut the locked knots; these threads should be trimmed as closely to the stitches as possible.

(d) Thread loops

If one observes thread loops in the same direction as of the stitches, they should not be trimmed. Instead, the embroiderer can use fingernails to pull the loops to the wrong side or backside of the garment. However, if thread loops are in an opposite direction of the stitches, it is safe to trim them. They should be trimmed as closely to the stitches as possible.

(e) Crooked logo or embroidered product

Firstly, spread the garment evenly on the trimming table, then if the embroidery appears slightly twisted and wrinkled, steam iron well on the embroidered area. When the embroidery is hot (because of the effect of ironing), twist and turn your hand and stretch the fabric a bit softly. Repeat this process a number of times. Finally, check the embroidery again.

(f) Stains on embroidered product

While doing embroidery, the fabric might acquire some stains like oil, dust, etc. There are many ways of removing stains depending on the type of fabric and type of stains. Most of the stains can be removed with a drop of dish soap and water. If this does not work, once the product is dry, you can spray the area with acetone or bleaching agent in case of white fabrics depending upon the type of stains.

(g) Damaged embroidered product

The damage caused to the product while doing embroidery or hooping should be removed properly. One must not finalise and deliver the product to the client

NOTES



with damages as it might be unfair to both the client and the worker, besides damaging the reputation of the organisation or the business handling the project. The best way to deal with it would be to bring the situation to the attention of the customer and let them decide what they wish to do. They could ask for a replacement, the cost of which could be borne by the organisation or the business.

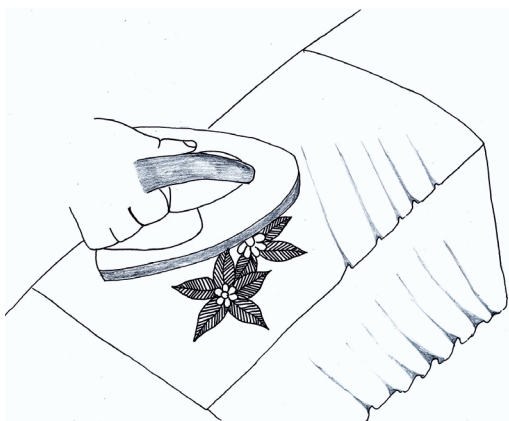


Fig. 3.10 Ironing of embroidered products

(h) Ironing and packaging

After finishing the embroidered product and checking the above points, the product is finally ironed to remove all the creases and wrinkles and folded properly.

At the end, the packing is done according to the packing methods followed in that organisation.

Costing of embroidered products or garments

Cost is the financial value acquired by the resources which are used to prepare a product. Costing is the method of estimating and then evaluating the total cost of producing a product or garment, together with the cost of raw materials, the ornamentation or embroidery done on it, labour charges, marketing and transportation, as well as the general expenses of operating the business. Merchandisers should have a thorough knowledge of costing. A merchandiser has to do costing primarily for two purposes:

Pricing of the embroidered garment

When the manufacturer is selling the embroidered garments directly to the end user, then it is quite necessary to estimate the cost precisely. Pricing of the garment is done by adding the manufacturing costs plus the estimated profit percentage to it.

Order acceptance

Costing is the base of a business, if the manufacturer is supplying exporting the embroidered product. The cost of garment is determined based on the cost of the



manufacturing such as wages, operating expenses, bulk of order (More the pieces ordered, lower is the cost per item), transportation and shipment charges, commissions, taxes and profit margin of the company. With this estimated cost, he/she first negotiates with the buyer and then makes the final decision of whether to accept the order or not.

The person who calculates the cost must have a thorough knowledge and information about the entire process of manufacturing and the activities, including purchase of raw materials, fabrics, operating process charges, sewing, transport, packaging, overheads, expected profit of the organisation, taxes and levies, etc., S/he must be aware and take into consideration the frequent fluctuations in the costs of raw materials and accessories, packing, charges of transport and conveyance, etc.

Since embroidery is mostly done for garments, the cost of the garment must be kept in mind, which depends on—

- (i) Fabric
- (ii) Trimmings
- (iii) Garment design
- (iv) Surface Embellishments: printing, embroidery, appliqué, etc.
- (v) Cost of Transportation
- (vi) Production time
- (vii) Labour
- (viii) Estimated profit of the manufacturing organisation

All the costing depends upon parameters which are unique and fluctuate often.

Finally, the finished products are labelled with its cost and are checked with buyer's specifications.

Key factors that directly affect embroidery costing, are—

(a) Quantity of embroidery work

It is a key point, which affects embroidery costing to a great extent. Every embroiderer should accurately know the quantity of work to be done in an article, otherwise embroidery takes more cost. Before fixing the cost of embroidery, the quantity of embroidery should



NOTES

be evaluated. This includes considering where would the embroidery be placed on the fabric, how many times it will be repeated, is it a big-sized embroidery or a smaller one, etc.

(b) Completion time

Time plays an important role in fixing embroidery cost. Different types of embroidery take different time to complete, which directly affects embroidery costing.

(c) Quality of raw materials

Embroidery is produced by using various types of thread and other raw material. The cost of raw materials may not always be the same at all places. Also, bulk purchase of raw material is likely to be cheaper. That affects the cost of embroidery too. If we use expensive raw materials, embroidery cost increases and vice versa. For example, metallic and silk embroidery threads are costlier than cotton thread work.

(d) Nature of embroidery

It is another important point which should be kept in mind during the costing of embroidered fabric. Each embroidery type needs different amount of costing i.e. the cost of chain stitch embroidery is not the same as that of zardozi work. This is because the raw material used in zardozi includes the use of *dabka*, stones, thread as well as chain, compared to chain stitch.

(e) Nature of workmanship

Costing is greatly dependent on the workmanship. Intricate work needs heavily skilled craftsmanship, more time, and more efforts of the worker whereas a regular article can be produced by using lesser efforts in less time.

(f) Customer's specification

Sometimes costing of any work depends on the customer's requirements. Just as in the garment industry, the customer's specifications are of importance, similarly in an embroidery unit too.

HAND EMBROIDERER – CLASS IX



Another factor that affects the cost is the size of the design and the number of places where embroidery is done. If the product requires embroidery at two locations, it will cost double than the embroidery done at just one location. Smaller, simpler designs will definitely be more economical.

Considering these factors can be very beneficial to decide the best price for what a client is looking for.

Evaluation of the embroidery work process is essential. Completing a job on time is mandatory. A job progress needs to be evaluated from time to time in order to finish the work order in a predecided time frame. Manuals should be maintained in order to inspect the progress of the embroidery work daily.

Practical Exercises

Activity 1

Prepare a chart of the different issues to be addressed during the finishing process.

Material Required

1. Chart sheet of A3 size
2. Pencil
3. Glue
4. Eraser
5. Colourful pen/pencil
6. Ruler

Procedure

1. Write down the different issues that must be addressed during the finishing process of an embroidered product on the chart sheet.
2. Paste relevant pictures wherever possible.
3. Decorate the sheet with coloured pens, pencils, etc.
4. Pin it on the drawing board of your classroom.

Activity 2

Visit an embroidery unit and prepare a report on the costing of any one embroidered product.

Material Required

1. Notebook
2. Pen



NOTES

Procedure

1. Visit an embroidery unit.
2. Observe the different steps of costing of any embroidered product or garment.
3. Collect information on costing of the embroidered product or garment.
4. Prepare a report on the costing of an embroidered product or garment.

Check Your Progress

- A. Find the following words from the maze given below. You can find words upwards, downwards or diagonally.**

QUALITY, FRAMING, FINAL, COSTING, IRONING, PRICING, THREAD, DAMAGE, ORDER, RAW, CUT

Q	J	F	R	C	D	D
I	U	R	A	O	A	A
R	P	A	W	S	E	M
O	R	M	L	T	R	A
N	I	I	A	I	H	G
I	C	N	N	N	T	E
N	I	G	I	G	U	Y
G	N	R	F	N	C	A
M	G	O	R	D	E	R

B. Questions

1. Explain in brief the costing of an embroidered product.
2. Write short notes on: (a) Missing stitches (b) Stray threads (c) Thread loops
3. Write down the issues of the finishing process of embroidered products.